Research Department
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FRBSF Weekly Letter

# Copper in the Red

The first half of 1982 proved to be even more painful for the U.S. copper industry than the disastrous year of 1981. Severe cutbacks in mine production left refineries operating at only 55 percent of capacity but were not enough to stem downward pressure on domestic producer prices for refined copper. By June of this year, major U.S. copper producers had actually been operating in the red for more than six months.

The weakness in the copper industry lies in the combination of a slump in worldwide demand for refined copper and excessive worldwide production. Major final users of copper products such as the construction and transportation equipment industries have reduced their purchase orders but foreign producers have failed to cut back primary output.

**Fleeting rally**
There was an apparent rally in copper prices on the New York and London commodity exchanges in July of this year but it proved to be the result of temporary speculative buying rather than any fundamental improvement in the demand for copper.

Earlier, in June, speculators reacted to high U.S. interest rates and declining inflation by engaging in a massive copper sell-off. The resulting decline in quotations on the exchanges—to 59 cents per pound—forced domestic producers to lower their prices to a range of 66-68 cents per pound. By July, the latest round of production cutbacks and a drop in interest rates had encouraged speculators to bid prices up slightly. The increase was nevertheless sufficient to enable U.S. producers to boost their prices to the range of 72-74 cents per pound. This higher range, currently in effect, is down about 50 percent from the all-time high of $1.45 per pound in early 1980 and far below the breakeven point, estimated at 85 cents to $1.00 per pound, for most firms.

By the early part of this month, exchange prices for copper were once again weakening. It appears doubtful that any price advance can be sustained until the economy improves significantly enough to correct the fundamental supply-demand problem. In the meantime, production curtailments are adversely affecting copper mining communities in Arizona (which traditionally account for over two-thirds of the nation's output), Utah and New Mexico.

**Worldwide surplus**
Copper demand has always been subject to cyclical volatility and its behavior during the 1980-82 recessionary period has been no exception. Demand for refined copper throughout the non-Communist world began to decline in 1980, after a strong first quarter. Worldwide deliveries dropped by nearly 7 percent that year, with most of the decline occurring in the U.S. market. In the United States, all major final user groups reduced their consumption—the construction, electrical, industrial machinery and equipment, transportation equipment and consumer goods industries. In July of the same year, the domestic industry was shut down by an industry-wide strike that lasted as long as five months at some facilities, but annual worldwide demand was so depressed that supplies available from refineries and the commodity exchanges were sufficient to meet demand with only a modest reduction in inventories.

In 1981, deliveries of refined copper throughout the non-Communist world fell by another 1 percent. In the United States, deliveries rebounded somewhat, due to the resumption of normal production, but still remained well below the 1979 peak. Elsewhere, demand fell substantially due to the slowdown in foreign economies. By mid-year, worldwide inventories of refined copper began to grow excessive. As a result, U.S. producers announced extensive summer and Christmas holiday shut-downs of mines and smelters in an effort to work off excess inventories. Still, by the end of 1981, refined stocks at domestic and foreign refineries and in commodity exchange warehouses had risen 6 percent to 771,000 tons.

Inventory accumulation has continued into 1982. According to industry sources, stocks have risen to an estimated level of around 900,000 tons, about 30 percent higher than the low of 693,000 tons in May of 1981. This build-up has occurred despite drastic cutbacks in U.S. mine and refinery production. Around mid-April, the nation's second largest producer shut down all of its copper mines and three of its four smelters. Those facilities remain closed. By June, that action and others helped reduce domestic mine production to a level 37 percent below the level of a year ago.

More curtailments have since been announced. In early July, the nation's leading copper producer stated that it will put its division at Hayden, Arizona on a "care and maintenance" basis for an indefinite period beginning August 15. The workforce will be reduced from 640 to 200 employees. The company also said it will lay off another 910 workers at its Utah division to bring the total layoffs so far this year at that facility to almost 2,000.

Unfortunately for domestic producers, the continued increase in mine production elsewhere in the non-Communist world has offset some of the domestic cutback. Major exporting nations such as Chile and Zaire, in an effort to maximize foreign exchange earnings from their government-owned properties, have continued to expand production.

The Intergovernmental Council of Copper Exporting Countries—the international association of foreign producers—agreed in their meeting on July 12-13 in Lima to limited intervention in the commodity exchange markets but not to support actual production cutbacks. In fact, representatives from both Chile and Peru labelled production cutbacks "impractical" due to their nations' needs to meet certain export quotas to satisfy International Monetary Fund loan commitments. Chile, the second largest copper producer in the non-Communist world after the top-ranking United States, still plans to increase mine production 4 percent in 1982. Without production cutbacks, these and other actions by the association to prop up prices in the face of weak consumption are likely to prove ineffective.

**Falling prices**

In the face of these weak market conditions, U.S. producer prices for refined copper have moved downward almost without interruption. Producers raised their nominal prices slightly in July but since 1970, the producer price for copper has declined about 48 percent in real (constant dollar) terms. In fact, in real terms, the price at the June low was the lowest price since the late 1940s.

On July 1, when the price of copper on the commodity exchanges had dropped far below U.S. producer prices, the nation's leading producer announced that it would no longer tie its selling price directly to the Comex (New York Commodity Exchange) quotation plus a delivery charge. Instead, the firm would revert to its traditional pre-1978 practice of posting price changes on a less frequent basis through an announcement process. This action reflected the company's unwillingness to bring its price closer into line with the extremely low exchange quotation.

Despite this change in the pricing formula, efforts by domestic producers to hold their prices above prices on world commodity exchanges cannot succeed for long. Copper is an internationally-traded commodity whose price is established in world markets. Since the United States is a net importer of copper, domestic producers must price their material to meet foreign competition or face increased inroads into domestic markets. Thus, there

## MONETARY POLICY OBJECTIVES

Federal Reserve Chairman Paul Volcker presented a report on "Monetary Policy Objectives for 1982" at the July 20 meeting of the House and Senate Banking Committees. The report includes a summary of the Federal Reserve's monetary-policy plans for 1982-83, along with a review of economic and financial developments this year to date. Single or multiple copies of the report can be obtained upon request from the Public Information Department, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco CA 94120. Phone (415) 544-2184.

must be a close correspondence among all copper prices throughout the world, after an allowance for delivery charges.

In the last two weeks, world commodity exchange prices have dropped once again, and now exert further downward pressure on domestic producer quotations.

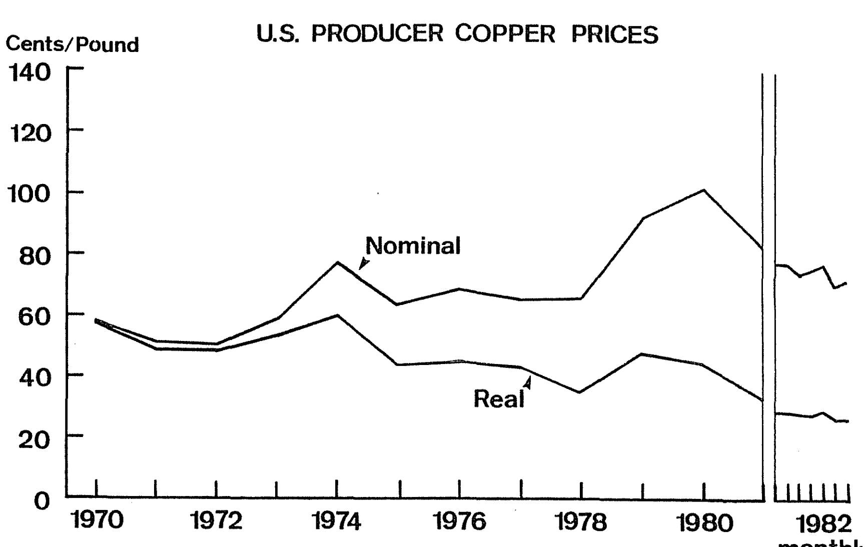
**Sustained upturn?**

The July increase in commodity exchange prices was triggered by such factors as increased buying by China, bidding by the U.S. Mint, and market intervention by foreign producers. Mostly, it reflected speculative buying triggered by lower U.S. interest rates which both reduced the costs of holding inventory and fostered expectations of future improvement in U.S. economic activity. The fundamental worldwide demand for copper products remained extremely depressed and served eventually to cool speculative buying interests.

The fleeting rally in the commodity exchanges only proved the rule that actual consumption must rise sufficiently to deplete producer inventories before copper prices can rise permanently. Speculation alone cannot sustain a price increase.

Given the sluggish nature of the recovery expected in the U.S. economy during the second half of this year, any significant recovery in copper prices probably will not occur untril 1983. At the same time, the depressed prices of other metals such as lead and zinc produced in association with copper add to the industry's problems.

**Yvonne Levy**



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## BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT
(Dollar amounts in millions)

| Selected Assets and Liabilities Large Commercial Banks | Amount Outstanding 7/28/82 | Change from 7/21/82 | Change from year ago Dollar | Percent |
|---|---|---|---|---|
| Loans (gross, adjusted) and investments* | 160,315 | − 38 | 10,092 | 6.7 |
| Loans (gross, adjusted) — total# | 140,365 | + 323 | 11,355 | 8.8 |
| Commercial and industrial | 44,257 | + 232 | 5,470 | 14.1 |
| Real estate | 57,146 | + 45 | 3,464 | 6.5 |
| Loans to individuals | 23,452 | + 57 | 547 | 2.4 |
| Securities loans | 2,764 | + 38 | 1,402 | 102.9 |
| U.S. Treasury securities* | 6,346 | − 284 | 114 | 1.8 |
| Other securities* | 13,604 | − 77 | − 1,377 | − 9.2 |
| Demand deposits — total# | 38,078 | − 745 | − 1,143 | − 2.9 |
| Demand deposits — adjusted | 27,282 | + 451 | − 277 | − 1.0 |
| Savings deposits — total | 30,314 | − 191 | 376 | 1.3 |
| Time deposits — total# | 99,344 | + 105 | 15,558 | 18.6 |
| Individuals, part. & corp. | 89,708 | + 59 | 14,332 | 19.0 |
| (Large negotiable CD's) | 37,692 | − 148 | 3,685 | 10.8 |

| Weekly Averages of Daily Figures | Week ended 7/28/82 | Week ended 7/21/82 | Comparable year-ago period |
|---|---|---|---|
| **Member Bank Reserve Position** | | | |
| Excess Reserves (+)/Deficiency (−) | 56 | 10 | 75 |
| Borrowings | 25 | 7 | 105 |
| Net free reserves (+)/Net borrowed(−) | 31 | 3 | − 30 |

* Excludes trading account securities.
\# Includes items not shown separately.

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